



DEVICE FOR USE WITH OPTICAL INSTRUMENTS

BACKGROUND OF THE INVENTION

1. **Field of the Invention:**

The present invention relates to the field of optical instruments, and more particularly, to a device for use with optical instruments, and still further, to a device which includes a lens configured with an individual's prescription that can be attached directly to telescopes, microscopes, lensometers, etc.

2. **Background of the Related Art:**

Normally, when a person who wears glasses looks through a lens (for example, a telescope, microscope, lensometer, etc.), he/she must remove his glasses to provide eye relief; otherwise, he/she suffers from vignetting (tunnel vision).

Therefore, there is a need for a device which can allow a person who normally wears glasses to use a microscope or other optical instrument without their glasses.

SUMMARY OF THE INVENTION

The present invention is directed to a device for use with optical instruments which includes, *inter alia*, a ring adapted and configured for receiving a corrective lens within an inner diameter thereof and a corrective lens disposed with the inner diameter of the ring, wherein the corrective lens has been configured in accordance with an individual's ophthalmic prescription. The device further includes a mechanism for attaching the ring to a lens of an optical instrument whereby a visually impaired individual can use the optical

instrument without the need for glasses or contact lenses.

In a preferred embodiment, the mechanism for attaching the ring to an optical instrument includes a clamping assembly. It is presently envisioned that the clamping assembly includes a series of threads machined on an exterior surface thereof which correspond to threads formed on the ring.

As noted above, when a person who wears glasses looks through a lens (for example, a telescope, microscope, lensometer, etc.), he must remove his glasses to provide eye relief; otherwise, he suffers from vignetting (tunnel vision). The present invention solves this problem.

The present invention provides a person's prescription in a device that can attach in front of the lens of an optical instrument, allowing the person to see more clearly.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Reference is now made to the accompanying figures for the purpose of describing, in detail, preferred and exemplary embodiments of the present disclosure. The figures and accompanying detailed description are provided to describe and illustrate exemplary manners in which the disclosed subject matter may be made and used, and are not intended to limit the scope thereof.

Referring now to Fig. 1, there is illustrated a device constructed in accordance with a preferred embodiment of the present invention. The device includes a threaded eyepiece "A" containing a lens adapted to an individual's eyeglass prescription and a clamping assembly "B" which is threadably engages with the eyepiece "A". The clamping assembly "B" further includes

clamping screws "C" for facilitating the attachment of the device to the lens "D" of an optical instrument (e.g., a telescope, microscope, etc.).

A person's eyeglass prescription will be needed in order to make the device of Fig. 1. The lens will be made from ophthalmic glass with a center no thinner than 2.0 millimeters. After the lens is edged to the appropriate diameter, it must be hardened by either heat or chemical tempering. It will then be covered with an antireflective coating and inserted into the threaded device that holds it in place. In the case of prescriptions with astigmatism, a marker (white dot, x, etc...) will indicate the placement of axis for a sphero - cylindrical correction.

Typically the device of the present invention will be thirty millimeters in diameter with the ring depth of ten millimeters. The lens will be held in place by two threaded rings on either side of the lens. Finally the device of the present invention will be held in place by either three threaded screws at the base, threads or a clamping device.